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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/766,895	12/13/96	DUNNING	D 42390.P3991

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EXAMINER	
VU, H	
ART UNIT	PAPER NUMBER
2663	15

DATE MAILED: 05/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/766,895	Dunning et al
Examiner	**Art Unit**
Huy Vu	2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Oct 22, 1999*

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☒ The proposed drawing correction filed on *May 3, 1999* is: a☒ approved b☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some* c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☐ Notice of References Cited (PTO-892)

16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18)☐ Interview Summary (PTO-413) Paper No(s). _____

19)☐ Notice of Informal Patent Application (PTO-152)

20)☐ Other:

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al (of record).

Regarding claim 1, Huang teaches the step of receiving at a switch (500) a packet (packet frame, figure 2) of binary digital signals as encoded binary digital signals including a bit pattern (header bits) so that the bit pattern (header bits) directly provides information regarding routing the packet through the network in its encoded form (see the col. 3, lines 47-53) and copying said bit pattern at least for decoding (see the copying of header bits by detector 510 for decoding purposes). Huang clearly teaches that the header bit pattern is made unique by using a special hear bit coding so that it can be readily detected (directly provides information). Since the header bits appears at the beginning of the packet, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding where/when the routing bits are supposed to appear/arrive. It is further noted that the routing bits are used to route the packet through the network.

Regarding claim 2, the received binary digital signal is decoded by node 500.

Regarding claim 3, figure 5 shows that the node receives the binary signal serially, and the deserialization is performed by DEMUX's 500, 551 and 552.

Regarding claim 4, the received encoded binary digital signals is deserialized and translated into for binary digital signals as shown in four output paths in figure 5.

Regarding claim 5, the deserialized and translated binary digital signals are routed to four different output paths as shown in figure 5.

Regarding claims 6 and 7, the output paths of node 500 are connected to other node (switches) in the network to route the output signals to their intended destinations.

Regarding claim 8, the encoded binary digital signals used to route the packet through the network comprises an encoded destination address (routing bits).

Regarding claim 9, the encoded binary digital signals used to route the packet through the network comprise encoded binary digital signal specifying a route through the network if decoded (see the use of the routing bits of the encoded signals for specifying a route).

Regarding claim 10, Huang teaches a switch (500) adapted to receive a packet (packet frame, figure 2) of binary digital signals as encoded binary digital signals including a bit pattern (header bits) so that the bit pattern (header bits) directly provides information regarding routing the packet through the network in its encoded form (see col. 3, lines 47-53) and to copy said bit pattern at least for decoding (see the copying of header bits by detector 510 for decoding purposes). Huang clearly teaches that the header bit pattern is made unique by using a special hear bit coding so that it can be

readily detected (directly provides information). Since the header bits appears at the beginning of the packet, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding when the routing bits arrive. It is further noted that the routing bits are used to specify how the packet is to be routed through the network.

Regarding claim 11, the switch (500) serially receives the packet (packet frame, figure 2) and serially copies the encoded binary digital signals to route the packet through the network (see the copying of header bits and routing bits of the received signal for determining how to route the packet in figure 5).

Regarding claim 12, the switch (500) further adapted to decode and the deserialize the copied encoded binary digital signals (see the decoding and deserializing of the received encoded signal by blocks 510, 520 550, 551 and 552 in figure 5).

Regarding claim 13, the received encoded binary digital signals is translated into four binary digital signals as shown in four output paths in figure 5.

Regarding claim 14, the output paths of node 500 are connected to other nodes in the network to route the output signals to their intended destinations.

Regarding claim 15, the encoded binary digital signals used to route the packet through the network comprises an encoded destination address (routing bits).

Regarding claim 16, the encoded binary digital signals used to route the packet through the network comprise encoded binary digital signal specifying a route through the network if decoded (see the use of the routing bits of the encoded signals for specifying a route).

Regarding claim 17, Huang teaches step of receiving at a switch (500) a packet (packet frame, figure 2) of binary digital signals as encoded binary digital signals including a bit pattern (header bits) so that the bit pattern (header bits) directly provides information regarding routing the packet through the network in its encoded form (see col. 3, lines 47-53) without decoding. Huang clearly teaches that the header bit pattern is made unique by using a special hear bit coding so that it can be readily detected (directly provides information). Since the header bits appears at the beginning of the packet, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding when the routing bits arrive. It is further noted that the routing bits are used to specify how the packet is to be routed through the network.

Regarding claim 18, the encoded binary digital signals used to route the packet through the network without decoding comprises a portion of the header (H1, H2; figure 2) of the packet.

Regarding claim 19, the binary digital signals are routed to four different output paths as shown in figure 5.

Regarding claims 20 and 21, the output paths of node 500 are connected to other nodes (switches) in the network to route the output signals to their intended destinations.

Regarding claim 22, Huang teaches a switch (500) adapted to receive a packet (packet frame, figure 2) of binary digital signals as encoded binary digital signals including a bit pattern (header bits) so that the bit pattern (header bits) directly provides information regarding routing the packet through the network in its encoded form (see col. 3, lines 47-53) without decoding. Huang clearly teaches that the header bit pattern is made unique by using a special hear bit coding so that it can be readily detected (directly provides information). Since the header bits appears at the beginning of the packet, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding when the routing bits arrive. It is further noted that the routing bits are used to specify how the packet is to be routed through the network.

Regarding claim 23, the encoded binary digital signals used to route the packet through the network without decoding comprises a portion of the header (H1, H2; figure 2) of the packet.

Regarding claim 24, the binary digital signals are routed to four different output paths as shown in figure 5.

Regarding claim 25, Huang teaches a routing unit (100) adapted to produce to be included in a packet (packet frame, figure 2) binary digital signals as encoded binary digital signals including a bit pattern (header bits) chosen so that when the bit pattern (header bits) is encoded it directly provides information regarding routing the packet through the network in its encoded form (see col. 3, lines 47-53) without decoding. Huang clearly teaches that the header bit pattern is made unique by using a special hear bit coding so that it can be readily detected (directly provides information).

Since the header bits appears at the beginning of the packet, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding when the routing bits arrive. It is further noted that the routing bits are used to specify how the packet is to be routed through the network.

Regarding claim 26, routing unit (100) is a network interface component since it is used to interface with the network.

Regarding claim 27, routing unit (100) is coupled to a switch (130, 500) adapted to route a packet (packet frame, figure 2) of binary digital signals through the network in accordance with the encoded binary digital signals including a bit pattern (header bits) so that the bit pattern (header bits) directly provides information regarding routing the packet through the network in its encoded form (see col. 3, lines 47-53) without decoding (see figures 1 and 5).

3. Applicant's arguments filed October 22, 1999 have been fully considered but they are not persuasive.

In response to Applicant's argument that Huang's header bits are used to indicate the beginning of the frame and do not provide information regarding routing the packet, it is noted that since the header bits appears at the beginning of the packet frame, in front of the routing bits, the detection of the header bits means that the routing bits will follow. In other words, the header bits provide the information regarding where/when the routing bits is supposed to appear/arrive. It is

further noted that the routing bits are used to route the packet. Thus, the header bits do indeed provides information regarding routing the packet.

In response to Applicant's argument that header bits do not represent encoded information, applicant's attention is directed to col. 3, lines 44-53 where Huang clearly teaches that header bits is made unique by using a unique bit coding so that the header bits can be easily detected and that the header bits provide information as to when the beginning of a packet frame occurs.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF
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Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D. Vu whose telephone number is (703) 308-6602. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 8:00 a.m. to 4:00 p.m. The examiner can also be reached on alternate Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

HUY D. VU
PRIMARY EXAMINER